DOCUMENT RESUME

ED 063 863 HE 003 114

AUTHOR	Farrah, George A.
TITLE	Various Dimensions of Academic Relevancy.
INSTITUTION	Saint Cloud State Coll., Minn.
PUB DATE	7 Nov 71
NOTE	86p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Educational Change; *Educational Improvement; *Higher Education; *Program Effectiveness; *Relevance (Education); Student Interests; *Student Needs

ABSTRACT

Relevance in higher education is a difficult concept to define, but is even more difficult to evaluate. The experience of higher education must be continuous, dynamic, and active rather than sporadic, static, and passive. Within this context, academic relevance involves a meaningful experience where the student can, in many problem-solving situations, see the clear relationship of what he is asked to do in light of his own goals. Programs must offer a variety of alternatives, which include flexibility of time, flexibility of scheduling, flexibility in the use of space, and flexibility in the use of personnel. Rather than knowledge for the sake of knowledge, special attention and focus must be given to what is now popular known as the affective domain. This stress on the emotional tone of the student's behavior may be the most difficult task of all because of its affinity to values and the process of valuing. The phenomenon of academic relevance involves a framework of values intimately associated with success and failure. The student who adheres to the norms for a successful experience in higher education is regarded in like measure for his efforts. (HS)

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Various Dimensions of Academic Relevancy

by

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November 7, 1971

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ACKNOWLEDGEMENTS

This study would not have been possible without the great contributions, both in time and effort, of various individuals at St. Cloud State College and elsewhere.

I am profoundly grateful to Mr. Louis Hird, Director of Computer Services, St. Cloud State College, for his unstinting efforts in the treatment of statisical data. For example, he translated a coding manual into the language of a computer program; he arranged for a factor analysis study at the Computer Center at the University of Minnesota; and he also generated random samples for the analyses of specific data.

My deep appreciation is expressed to Dr. Paul Ingwell, Director of Institutional Research, St. Cloud State College, and to his assistants, Mr. Daniel Coleman, and Mr. Joseph Schwartz. Not only did they make available their electronic calculator, but they were most generous in offering their suggestions in the solution of some special problems.

For their assistance during the pilot study phase, I owe my colleagues at St. Cloud State College a great debt: to Dr. Russell Schmidt, for his assistance relating to theoretical aspects of the research design;

to Dr. Owen Hagen, for his willingness to serve on a study committee; to Dr. and Mrs. Ivan Watkins, for their efforts in appraising hundreds of relevancy items from students; to Dr. Martha Dallmann, for her editorial suggestions concerning the inventory; and, for their generous help in administering the inventory, to Dr. John Coulter, School of Arts and Sciences, Dr. Edgar Bavery, School of Education, and Mr. Geoffrey Hirt, School of Business.

Recognition must also be accorded and many thanks are due to the hundreds of St. Cloud students who participated in this relevancy study, either as those who contributed items, those who judged items, or those who were testees and answered the questions on the inventory. In particular, I wish to express my deepest appreciation to Miss Pamela Olson, Mrs. Marlene Witt, Mr. Kenneth Rubenzer, Mr. Tom Akensin, and Mr. Kurt Hannes. These students gave many hours of their precious time in order to assess items for the inventory.

The replicated model entailed the cooperative efforts of many dedicated individuals, and to these persons, I express my thanks and deep appreciation: to Dr. Gandi Rajender, for his time and efforts in administering the inventory at El Camino, California; to Dr. Alfred A. Lease, for his valuable suggestions relating to the technical aspects of the research

design; to Dr. Douglas Johnson of the University of Minnesota, for his assistance in the computer programming of MANOVA; and most important, to the many students, professors and administrators whose cooperative efforts made the nationwide study a reality.

I thank my wife, Lucille, for tolerating stacks of paper on the dining room table, and who waited patiently for me to digest the information. It is she who is also responsible for the difficult task of typing both the original and final manuscripts.

Finally, if academic relevancy is enhanced in any way, it was a <u>total</u> effort, as evidenced from the above, that provided momentum and substance for both phases of the study.

G.F.

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PART I

A General Overview of Academic Relevancy

> If we believe that the prime value of education in our fast-evolving world is its power to enable students to invent and to create new learnings, to prepare them to test, absorb, and use in the future things which nobody knows today, then the goal of the twentieth century teacher must be, more than ever, to implant a love of knowledge and the desire to expand it, and to create in the student a climate of receptivity for knowledge that does not yet exist.
>
> Laurence B. Johnson

Part I. A General Overview of Academic Relevancy

A. Introduction

- In Retrospect

In any human endeavor, there is a setting, a kind of Zeitgeist, which bears considerably on man's efforts to cope with his environment, his institutions, his ideals; in brief, his very manner of living - or dying. Indeed, the day has arrived when human survival is the crucial issue for those who are deeply concerned with the future of man in a free, open society. It is assumed, of course, that the individual is alert, and that he senses the danger of the world-wide struggle, of the deadly threat of internal strife.

There is also the stark realization that events on a national and international level, eventually have their repercussions on every mode of American life, much as the ripples caused by the stone cast into a pool of water. Indeed, American society has experienced many patterns of change in such terms as technological innovations, population movements, and the use and conservation of national resources. The basic trends, however, have been evident in urbanization and bureaucratization.[1] The very nature

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[1] For an excellent approach, see Norman F. Washburne, Interpreting Social Change in America (New York: Random House, 1954, pp 40-42.

of this complex, impersonal, highly competitive society has had a profound impact upon the individual, often caught in a maze of conformity, conflicting values, and, especially - general anxiety.[1]

According to the best traditions of democratic society, the individual is allowed to differ - to a point, of course - and to commit himself to an ideal. However, the crux of the matter involves an entire set of values that may place the individual at odds with the very society in which he lives and wishes to change. Historically, this dilemma is often faced by the crusading leader, the creative artist, or the individual imbued with a messianic ideal.

Most recently, however, with ever growing awareness and concern over domestic and international problems, it is becoming increasingly difficult for the youthful college student to establish his identity and purpose. Ironically, an exposure to the social issues of the day often turns his youthful zest and idealism into a rancor and hatred for order.

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1 See Rollo May, "Centrality of the Problem of Anxiety in Our Day," Identity and Anxiety ed. by Maurice R. Stein, Arthur J. Vidich, and David Manning White (Glencoe: The Free Press of Glencoe, Illinois, 1960), p. 120, c.f., Eric Dardel's "History and Our Times" (in the same volume) when he claims that "Innovation jolts the 'past' and agitates the present. A political change is deemed subversive, a religious reform seems a sacrilege, a want of understanding stalks the masters of art and philosophy. Freedom must forge its way past the barriers of an established world, acquired situations, intellectual conformities, sacred customs." p. 587

It was within the aforesaid framework of social unrest, of foreign and domestic problems, that the idea of relevancy was cultivated. The post-World War II parents, along with certain intellectual strata, emphasized a youth-centered society, with a wide latitude of permissive behavior. In addition, the schools and colleges stressed the method of questioning the purposes, the values, or the ideas of institutions and customs.

As the knights of old, youth have been urged to take up the sword and strike out against the sordid ills of twentieth century society. Hence, this hue and cry for relevancy has found meaning in <u>social relevancy</u>. Now then, at best, and in all innocence, there is that wonderful spirit of youth which, in a <u>moment</u>, would strike out against every sordid, social ill, because it is relevant to one's sense of fair play or to one's sense of justice. There is no argument here with this kind of high idealism, except that any means to attain the goal is justified by the plea of relevancy - in this case, social relevancy! At worst, and not at all innocent, relevancy has been planned, organized, or specified in a manner that has resulted in confusion, chaos, and, in some cases, outright destruction.

The target and spawning ground for the revolutionary actions has been the American college campus. Pleading

to the idealism of youth, and via the magic or aura inherent in the concept of relevancy, the politicizing of the campus has been deliberate, dramatic, and - highly successful![1] The most tragic consequence (of this powerful minority to destroy or create havoc) is to completely distort the purpose or function of the university. Assuredly, the university is more than a repository of knowledge. Assuredly, the role or function of higher learning involves service-related activities, both within the local community setting and the community at large. However, and most assuredly, the institutions of higher learning are <u>not</u> responsible for every social ill, nor can they create panaceas for programs deemed "highly relevant."

Paralleling this great distortion (of the purposes of higher education) has been the thwarting of the majority of students who are sincerely interested in becoming educated. Indeed, the very process of a young person <u>becoming</u> the very best person that it is possible for him to become is lost in the consideration of problems deemed more "immediate," more "pressing," or more "relevant." Rather, one finds the student stretching his idealism (or is it stretched for him) to impossible limits of attainment, to the ideal of

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[1] There is a growing awareness and concern, reflected, in part, through the mass media of the deadly threat to American institutions of higher learning. For example, in the September 7, 1970 issue of <u>U.S. News and World Report</u>, it was stated that, "Higher education cannot afford a repetition of the events of last May, (1970), when student strikes and boycotts hit some 450 schools, forcing many to close." (p. 16)

perfection, so that, as it apparently seems to him, there are tremendous gaps between what should be and what is. The intervening variable between these two conditions, as seen by the student who seeks "greater relevancy," is the "establishment."

For good or evil, for better or worse, the establishment has become fair game and the target for every imaginable social ill. Does it not follow that the schools, the colleges, and other institutions of higher learning - all various forms of the "establishment" - are called upon, or worse, demands are made upon them to perform the impossible, to provide solutions to problems beyond their capabilities?

Whereas, the student should be guided to a process of <u>continuous</u> self-evaluation with an emphasis on <u>personal relevancy</u>, he is often caught in a surging tide of idealistic fervor, later to be hurled against the jagged rocks of disillusionment, and left with a complete feeling of despair or helplessness.

- In Prospect

What, then, is the concept of personal relevancy? As viewed in this study, it is a <u>life-long process</u> involving the various stages and tasks of growing up, of reaching adulthood and of becoming a mature, useful citizen. It is quite evident, then, that personal relevancy is <u>not</u> for the moment, is <u>not</u> for an occasional "time-out" day, and is <u>not</u> for "moratoriums" or recesses from classes-

as vital as they may seem!

The process of becoming mature, decent young men or women is, at best, a painful one, often involving personal sacrifice and forgoing of momentary, personal pleasures. Once upon a time, this process was referred to as "character development," but now the concept is no longer considered relevant - in fact, it is old-fashioned. What is most amazing is that, surrounded by those who would distort or destroy the tradition of the American college, the vast majority of youth are basically good, young people, sincere in their desire and dedicated to their purposes of becoming responsible, decent citizens.

In all fairness, one cannot deny that, at any given time in a person's life, there are urgent matters that become highly relevant. For example, the young man faced with the prospect of the draft and an uncertain future may view the issue of war and peace as highly relevant to him. It is also understandable that this young man may regard the internal, domestic crisis as most relevant for his future economic and spiritual well-being.

Nevertheless, in any depth probe of relevancy, it would seem prudent to ask: at what point in the student's life does <u>any</u> notion of relevancy prove to be a catalytic agent or a crucial aspect for his academic or social behavior? Are his goals <u>really</u> his goals? Are his needs

<u>really</u> his needs? What perceptions does he hold regarding his own worth, or more accurately, his own self-concept?

If the above characteristics and conditions are typical of stress, of rapid change, of great uncertainty, then there is great cause for concern. In prospect, there is cause for concern, because one observes that the American mores are saturated with such problems of youth as drug usage, sex and free love, and a great striving for independence. Nevertheless, in prospect, there are valuable clues to be gained for those who are sincerely interested in the direction, welfare, and, especially, the personal relevancy of our young adults.

First, it is quite clear that the youth of our colleges are basically decent and law-abiding citizens until someone "sets the stage" for them to behave otherwise.

Second, it should be obvious that the most relevant things to our youth are what <u>one would expect</u> of maturing individuals. Indeed, when left alone, they want to "get on with the job" of becoming educated. Yet, for many young adults, the educational process on the American campus is a dreary, sterile experience involving learning by rote in a passive setting. Here, the plea for personal relevancy is well justified!

Third, concerted efforts should be made to afford a better understanding among college faculty, administration, and students. Aside from the overworked cliche'

of a "generation gap," there <u>is</u> a social distance between most instructors and students. The enhancement of personal relevancy is difficult to achieve when such barriers come between people.

In the pages that follow, the author describes a long-range probe into the fascinating area of academic relevancy. If one is to be truly scientific in his investigation, then there is always the burden of proof.

There are enormous problems associated with any study of academic relevancy. As one progresses through the various stages indicated in the parts that follow, one notes the many steps - time-consuming steps - that are necessary to bridge the theory of academic relevancy with practical means of measuring its very existence.

For example, in Part I, considerable effort has been exerted to relate the background of the theory of relevancy as it is used in the study. By its very definition, the task of <u>defining</u> relevancy is almost impossible. However, from the very rich field of evaluation and measurement one finds ample tools to at least come to grips with the problem. Here, then, to the reader not familiar with this "jargon," it may be difficult to follow. Yet, without these technical explanations, the study itself would be meaningless!

The actual involvement of students and instructors

into the procedures of studying relevancy constitutes Part II. There is an orderly sequence which traces the very first step of item building to the final step of the collection and treatment of data. Here, again, because the material is so highly technical, various statistical tables and treatments may be found in the Appendices.

Finally, there remains the pressing question of how to apply the information and knowledge resulting from such a study - if, indeed it can be applied! Some possibilities for application are considered in the summary.

B. Theoretical Considerations: Some Special Problems Associated with Academic Relevancy

An inspection of the literature reveals a great paucity of information directly related to the concept of academic relevancy.[1] In brief, if one were to note the dominant themes derived from a cross-sectional study of behavioral sciences, one could arrive at the following generalizations:

1. That relevancy is a problem of existentialism.
2. That relevancy is a problem of identity.
3. That, fundamentally, relevancy is a problem involving the affirmation or denial of values, ideas, habits, or traits.
4. That relevancy is a generalized, dynamic phenomena involving a time-person-space continuum within a particular reference system.

Admittedly, if relevancy is any one or all of the aforesaid qualities, there is the knotty problem of measuring these phenomena in a quantitative way. Moreoever, if one assumes that relevancy involves dynamic human behavior which, in the view of Henri Bergson is in constant flux, then one would find it extremely difficult (if not impossible) to measure this life process of becoming via passive, static means. It seems, then, that the best that one can hope for is an approximation of relevancy for the individual at a

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1 It is significant to note that such allied fields as psychotherapy and psychology have, if only in an indirect, obtuse way, given the concept special attention. See, for example, Hendrik M. Ruitenbeck, The Individual and the Crowd: A Study of Identity in America (New York: The New American Library, 1964). For example, Ruitenbeck states that "Currently, American education faces two problems: fitting individuals to live in a technological mass society without losing too many of the traditional human values and, secondly, using the schools to bring the young people among the new immigrants to the big cities into orbit of the middle-class world." (p. 76). One could also include other minorities who are not in the mainstream of middle-class America.

given, particular time. Yet, unless one is willing to completely leave the assessment of relevancy to the realm of abnormal psychology, there is a tremendous field, a fertile area, for the investigation and the assessment of relevancy. Indeed, some years ago, Carl G. Jung, in his most perceptive way, observed that:

> The underestimation of the psychological factor is likely to take a bitter revenge. It is therefore, high time we caught up with ourselves in this matter. For the present this must remain a pious wish, because self-knowledge, as well as being highly unpopular, seems to be an unpleasantly idealistic goal, reeks of morality, and is preoccupied with the psychological shadow, which is normally denied whenever possible or at least not spoken of. The task that faces our age is indeed almost inseparably difficult.[1]

Increasingly, and it is an encouraging development within educational circles, special attention has been focused on the creation of an affective domain, which incorporates such goals as receiving (attending), responding, valuing, organizing, and characterizing by a value or value complex.[2] This emphasis opens up a wide latitude of possibilities relating to the emotional tone of behavior. With much greater precision, one should be able to state goals and concepts

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1 From The Undiscovered Self (New York: The New American Library, 1957), pp. 105-106.

2 David Krathwohl, Benjamin S. Bloom and Bertram B. Masia, Taxonomy of Educational Objectives, Handbook II: Affective Domain (New York: David McKay Company, Inc. 1964), p. 35.

in terms of understanding, attitudes, appreciations, awarenesses, and interests. Herein, is the "stuff," the catalytic agents of relevancy.

Clearly, then, the concept of relevancy can only have meaning when it is related to a particular reference field. It is said that "Procedures depend on criteria. Criteria depend on rationales. Rationales depend on theories. From evaluation theory to practice, new thinking is needed."[1] If, in this chain of procedure, a reference field is to be developed embracing relevancy, it is the theory of self-concept which holds tremendous promise!

As a theoretical construct, the self-concept of the individual has received dual attention in recent years, both as a mental health objective to be improved, and as a motivational variable to be related to academic achievement.[2] However, the measurement of self-concept has been complicated by the overlapping of personality, attitudinal and situational factors which have limited theoretical models, and have confounded item content. Wylie's comprehensive criticism of the self-concept literature included attacks on the vagueness of the current theoretical formulation and the

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1 Ralph Tyler, Robert Gagne, and Michael Scriven Perspectives of Curriculum Evaluation: Monograph #1 (Chicago: Rand Mcnally & Company, 1967), p. 7. The first of a series of monographs sponsored by the American Educational Research Association.

2 William W. Farquhar. A most comprehensive study of the motivational factors underlying achievement of eleventh grade high school students. Cooperative Research Project No. 846, East Lansing, Michigan: Michigan State University, 1963.

inappropriateness of the construct validity used in self-concept measuring instruments.[1]

A theoretical, factorial model, which attempts to control the vagueness and multi-dimensionality of item content, has recently been developed.[2] This initial inventory was designed for use in the elementary schools, and later, the theoretical constructs were extended to include the junior and senior high school levels.[3] Moreover, these constructs were conceived as academically related self-concept coupled with academically related motivation. In effect, self-concept is divided into two general categories: self-adequacy and role expectations, while motivation is composed of academic and social goal achievement needs, and low level failure avoidance.[4]

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1 Ruth C. Wylie, The Self-Concept: A Critical Survey of Pertinent Research Literature (Lincoln, Nebraska: University of Nebraska Press, 1961).

2 George A. Farrah, Norman J. Milchus, and William Reitz The Construct Validity of a Self-Concept and Motivation Inventory Battery Which Controls Item Content Through Factorial Structure. Presented at the Annual Meeting of the National Council on Measurement in Education, Chicago, Illinois, February, 1968, and published by Person-O-Metrics, Dearborn Heights, Michigan.

3 Ibid., pp. 7-8. It is interesting to note that reliability coefficients for these inventories range from .83 to .93.

4 The author has been profoundly influenced by the theories of George H. Mead and Kurt Lewin. In the case of the former, see Mind, Self and Society (Chicago, Illinois: University of Chicago Press, 1934), and for the latter, see A Dynamic Theory of Personality (New York: McGraw-Hill, 1935).

Another significant source for the development of the aforesaid inventory has been the "significant others concept for students."[1]

The influence of certain social psychological factors is paramount. For example, Edward's and Wilson's study of personality orientations toward school suggested aesthetic and prudent factors.[2] Later, these factors were redefined as immediate - intrinsic (for the self-concept construct). Yet, others investigating the strong conformity component, have suggested ideas that were identified and treated so that the cooperation and adjustment aspects of conformity would be emphasized.[3]

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1 Edsel Erickson and Thomas Shairler. Here, considerable attention is directed to the normative influences of parents and friends upon school achievement. A paper presented as part of a symposium entitled: Self-Concept Enhancement and its Relationship to Academic Achievement: A Longitudinal Study, Chairman: W. B. Brookover; presented to the American Educational Research Association, Chicago, Illinois, February, 1965.

2 Bently T. Edwards and Alan B. Wilson, A Study of Some Social and Psychological Factors Influencing Educational Achievement, Cooperative Research Project No. 379 (Berkeley, California: University of California, 1961).

3 See Raymond B. Cattell and Philip A. Sealy, The General Relations for Changes in Personality and Interest to Changes in School Performance: An Exploratory Study, Cooperative Research Project No.1411 (Urbana, Illinois: University of Illinois. 1964). See also Jack R. Frymier, Development and Validation of a Motivation Index: A Fifth Report. A paper read at the annual meeting of the American Educational Research Association, Chicago, Illinois, February, 1964.

Within the decade of the sixties, there appeared to be a deepening concern with the idea that cognitive human ability was the overwhelming factor in academic achievement. Dedicated scholars gave momentum to an exciting trend which emphasized the unification of principles regarding the self, student self-evaluation as an important attribute of success or failure, and, most important, practical applications of self-concept to the world of education.

One hesitates to cite the individuals or institutions who contributed greatly to the field because it is so easy to commit the sin of omission. Nevertheless, in all fairnes to their dedicated, innovative work, individuals at the University of Florida, Michigan State University, and Wayne State University have had an enormous influence on the development and application of self-concept theory. In this latter connection, one immediately thinks of A. W. Combs, I. J. Gordon, William W. Purkey, all of the University of Florida; W. B. Brookover, and D. E. Hamacheck, Michigan State University; and E. C. Kelley, Wayne State University. The chronology of some other contributors to the field include such stalwarts as Cooley (1902), Mead (1934), Sullivan (1947), Allport (1955), Jerseld (1952), Block (1952), Farber (1962), Goldstein (1963) and Coopersmith (1967).[1]

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[1] William W. Purkey, Self-Concept and School Achievement (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1970), p. 28. Here is an excellent, succinctly stated treatment of the subject.

Concurrent with the efforts to bridge the gap between theory and practice, there has been considerable disagreement concerning the reliability and validity of various instruments employed to measure self-concept (Zirkel and Moses, 1971). There are numerous difficulties inherent in the measurement of self, but, in the opinion of this writer, they are not insurmountable, especially if one realizes that an approximation of self-concept is far better than no assessment whatsoever!

Consider, for example, that there are individuals who deny that self-concept can be measured, and, yet, same individuals speak of "High" or "Low" self-concepts! Now since these latter terms are comparative, how does one arrive at this decision? By observation? By intuition? While there may be considerable merit to these latter methods, the great variability among individuals making such assessments of self-concept would cast considerable doubt on the validity and reliability of this subjective standard.

Other critics of what is characterized as "self-reporting" believe that while the self-concept is what an individual believes about himself, the self-report is only what he is willing and able to disclose to someone else. [1] Yet, even though it may be impossible to establish a one-to-one relationship between self-reporting and self-concept, there is research to support the claim that inferences can be

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[1] Ibid., p. 60.

made of a person's self-concept based on the statements made about himself.[1]

Moreover, within this nebulous world of self-concept, where certain human traits are not always what they seem to be, procedures are available for the measurement of psychological traits. If, for example, and as noted earlier, a reference field were developed where meaningful relations can be established between relevancy and self-concept, then the existence or absence of these relationships may be achieved via the technique of construct validity.[2] Further replications of the research design and instrument should provide proof of the relationship between the observed measurement and the theoretical construct(s).

Most recently, at Temple University, a brilliant study was made relating to the various dimensions of self-concept as applied to the prediction of academic achievement on the college level.[3] Herein is a breakthrough, especially in terms of treating a "global variable" (i.e., self-concept), and in terms of the "potential in improving the prediction of academic success."[4]

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1 D. Streng and D. Feder, "Measurement of the Self-Concept: A Critique of the Literature" (Journal of Consulting Psychology, 8; 1961), p. 170.

2 Jum C. Nunnally, Educational Measurement and Evaluation (New York: McGraw-Hill Book Company, 1964), pp. 22-24.

3 Cathleen M. Kubiniec, "The Relative Efficacy of Various Dimensions of the Self-Concept in Predicting Academic Achievement" (American Educational Research Journal, Vol. 7, No. 3 May, 1970), pp. 321-336.

4 Ibid., pp. 321

One of the conclusions drawn from this unique, multivariate approach indicated the need for "development of instruments specifically designed to assess perceptions of past and future, and determination of the value of these measures as predictors of behavior, across several criteria."[1]

Hence, as described in the above studies the synthesizing of theories on different points of focus can be efficiently accomplished by sophisticated models.

Returning to the central purpose of this work, an understanding of the many facets and the theoretical influence is absolutely necessary if one is to understand the context and the reference field within which the idea of relevancy is employed. As shown in Figure 1, the general theory and hierarchy of values for academic relevancy incorporates the dynamic constructs of self-concept and motivation. Here, it should be noted that such a division occurs only for the purpose of study; if the present is a point of tension between the past and the future, then these attributes of phenomonology are operational within the "whole" personality. To further clarify what these constructs or terms mean, the following definitions are provided:

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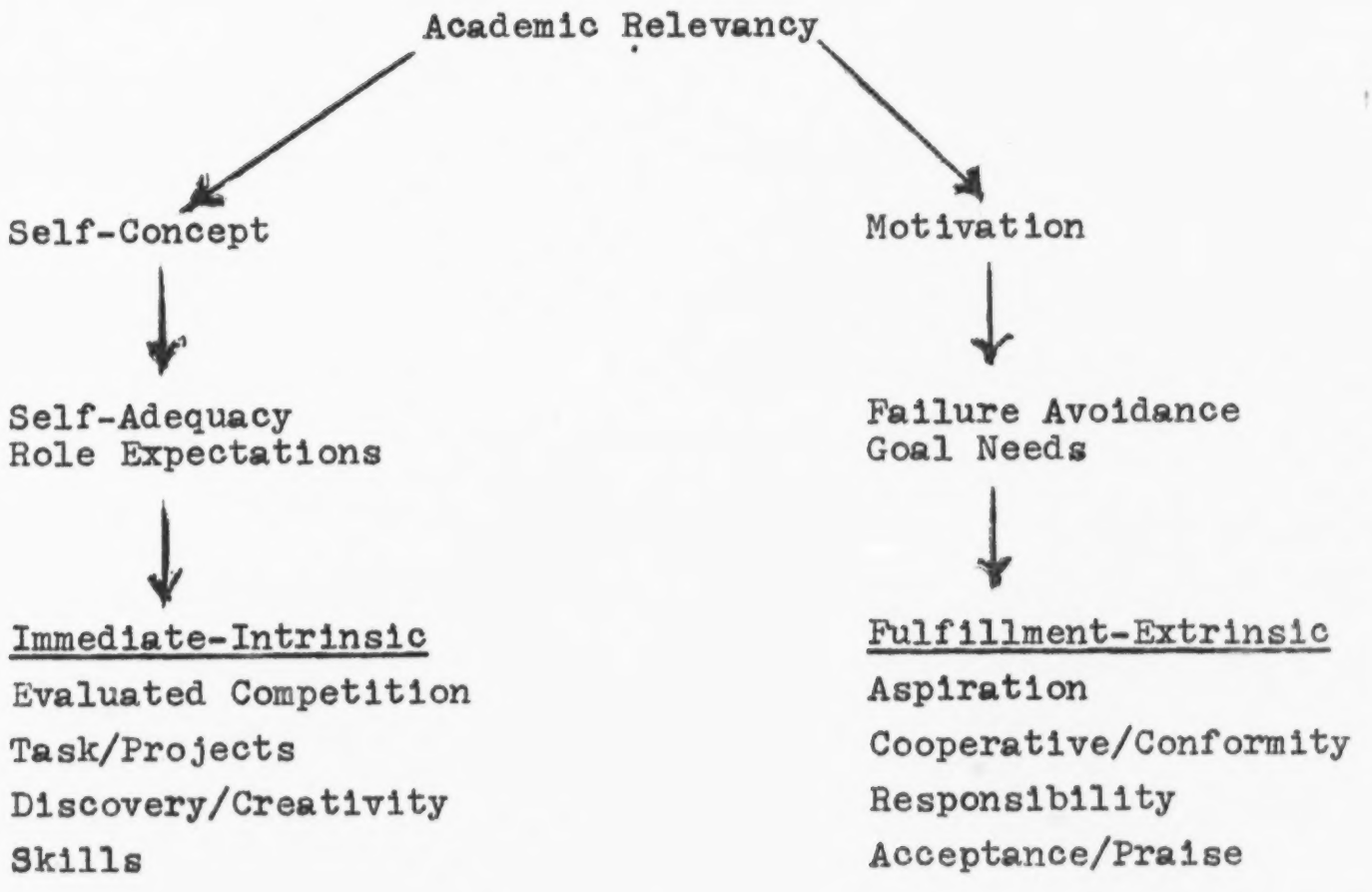
[1] Ibid., p. 334

Figure 1

GENERAL THEORY AND A HIERARCHY
OF VALUES FOR ACADEMIC RELEVANCY



Definition of Self-Concept:

The academic self-concept is how the student views his role as a learner in college. It is the student's sum of experiences, perceptions, attitudes, and feelings about college.

Elements of Self-Concept:

Self-Concept is made up of role expectations and self-adequacy:

> Role Expectations is the positive acceptance of the aspirations and demands that the student thinks others - significant others - expect of him. Here, reference is made to the influence of parents, peers, instructors, and sometimes to the influence of counselors, neighbors, adult relatives and friends of the family which has an impact on the student's life. The student views his significant others as models for his behavior. They confer the approval and disapproval that seems to matter. Significant others tell the student in many ways what he is and how he is expected to act. They establish a climate which threatens or supports.
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> Self Adequacy is the positive regard with which a student sees his present and future probabilities of success in college. Here, some expectations, standards, needs, and fears become internalized so that their source of support seems to be part of the conscience, superego, or self. Academic self and the physical and social self imply the judgment of an ideal self, as interpreted from the views of significant others.

Definition of Motivation:

Academic Motivation is the expressed need of the student to achieve a goal in college, and the moderate avoidance of the student toward failure in college - avoidance below the point of anxiety. Motivation has a strong element of cooperative adjustment toward college.

Elements of Motivation:

Motivation is made up of goal needs and failure avoidance.

> Goal Needs is the positive regard with which a student perceives the intrinsic and extrinsic rewards of learning and performing in college.

Failure Avoidance is the awareness and concern toward shunning the embarrassment and sanctions which are associated with failure in college. When failure avoidance is extremely high without support from the self-concept, realistic avoidance becomes anxious fear. Anxious fear or failure anxiety stifles achievement in college.

Immediate and Intrinsic Orientation:
(Elements of Self-Concept)

The immediate and intrinsic orientation describes the types of college activities encountered by the student. These include: evaluated competition, tasks and projects, discovery and creativity, and the development and growth of skills.

Fulfillment and Extrinsic Orientation:
(Elements of Motivation)

The fulfillment and extrinsic orientation reflects behavior which strives to fulfill roles. Here, there is much of the future involved, and of the very process of becoming. The roles of aspiration, cooperation and conformity, responsibility and acceptance and praise are extrinsic from the activities from which they derive.

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From the viewpoint of this writer, the most interesting and crucial phase of the study was the involvement of students. If the aforesaid framework for the determination of relevancy had any significance or validity, a sampling of students' opinions had to be obtained. Therefore, beginning in the winter quarter of 1969, and continuing for several months, the writer, in many of his classes, asked students to submit descriptions of what they thought self-concept entailed. Many ideas and themes emerged from this request.

How the Student Views Self-Concept and Motivation

When students were asked to give their descriptions of the ideal self-concept, they were only provided with a minimum framework in which to respond. For example, the author merely explained, "If one can accept the idea that self-concept entails such attributes as self-adequacy, role expectations, goals, and failure, how do you perceive these attributes of self-concept?"

Consider these varied and interesting responses:[1]

Student A

> The self-concept as idealized by the individual is one of self thought. One must not think of himself as a separate entity, but an integral part of the whole. The "whole" of your capacity is in relation to your ability. Each person's capacity varies; therefore, each person's self-concept is unique.
>
> The unique self has certain faculties, attributes, aptitudes, awarenesses, and limits. Understanding and appreciating these is a basis for understanding one's self. In turn, understanding one's self is realizing one's expectations to achieve one's capacity.
>
> In essence, the self is in constant flow. Expectations of one's self are constantly changing to meet demands upon the "self."

Student B

> Self-concept is basically how a person feels toward himself in relation to the whole environment which surrounds him.
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> How confident a person is in doing his work indicates a phase of his self-concept. If an individual attacks

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1 These responses are given verbatim, and the anonymity of students is preserved via letters.

a problem with confidence in himself, he will have a much easier time than if there was no confidence . There are barriers and limitations which individuals may not be able to overcome. They should not be regarded as a fear, but (as) an opportunity for the betterment of one's self.

Self-concept is the confidence an individual has in himself to accomplish tasks, achieve goals, and attain a station in life.

Student C

A person's self-confidence is actually somewhat of a sum of his experiences and how he perceives these experiences. From experiences throughout life, a person developes his self-concept. It is actually a part of a person's personality.

To have a good self-concept, a person has had pleasant experiences or has been able to cope with the problems properly. A person with a good self-concept is a confident person. He knows himself thoroughly, such as his strengths and weaknesses. He also knows how to properly compensate for his weaknesses.

A person who is in education and eventually plans to work with young people should have a good self-concept. Without this, it would be extremely difficult to relate to other people, especially children.

Student D

Personality can be defined as the sum of all a person's characteristics and his behavior. Included in, and a very important part of his personality is his self-concept. You can look at this self-concept and ask some of the following questions: Does he have a realistic and satisfying self-concept? Is he confident and sure of his personal worth? Has he set suitable and challenging goals for himself, keeping in mind his own limitations as well as his strengths? Is he satisfied with his occupation?

If a person can answer all of these questions positively and has looked at them realistically, I feel that he is on the right road.

Student E

Applied to the learning situation, a relevant aspect of self-concept is each person's conception of his ability to learn the accepted types of academic behavior.

Results of research indicate that the evaluation of others are sufficient to lead to a change in self and increased achievement. The experience of success in his work also enhances self-concept.

Self-concept begins with an identification with parents or other adult figures, and, in later years, often turns to one's peers. One's environment is also an important part in the development of self-concept.

For the ideal self-concept, it is very important to have a good feeling of self-adequacy. You have to believe in yourself and have confidence in yourself if others are to respect your opinions. One should also have high goals and needs, and a desire to try new things without the fear of failure.

We must know and understand ourselves before we can know and understand others.

PART II

An Investigation of Academic Relevancy

As educators our main aim must be the development of the emotional maturity, imagination, and understanding necessary for living together in a world grown small.

Willis H. Scott

Part II. An Investigation of Academic Relevancy

C. Objectives of the Inquiry

In a two-phased approach, the purposes of this study were: 1) During the pilot phase, to develop a general theory and heirarchy of values in order to appraise academic relevancy of undergraduate students at St. Cloud State College: and 2) to replicate the pilot model via a study of academic relevancy at eighteen selected American colleges and universities.

- Research Methods and/or Techniques

For both phases, hypotheses were stated in three forms: 1) General: That the use of the academic relevancy inventory will produce differences in various characteristics. 2) Working: That the differences will occur within such student characteristics as sex (i.e., male vs. female), honor point ratio (i.e., low to average h.p.r.), school (i.e., school or college of education vs. school or college of arts and sciences), and age (i.e., under twenty vs. over twenty). 3) Null: That there are no significant differences within the above student characteristics.

The pilot study extended from January, 1969, to August, 1970. During this time period, and with the cooperation of students and other professors, the following crucial procedures were employed:

1. Item building by students.
2. Theory building (i.e., the classification of items within the categories of self-concept or motivation) and content analysis of items by a panel jury of students and professors from the various schools at St. Cloud State.
3. Development of a scale, utilizing 3' x 5' cards and a 'Q-Sort" box, in order to assess student responses to the items.
4. The construction of an inventory to measure academic relevancy.
5. After considerable experimentation, the inventory was administered, on one occasion, to 108 undergraduate students.

The available universe of information involved 90 students from the School of Education, 11 students from the School of Arts and Sciences, and 7 students from the School of Business, all of St. Cloud State College. This total, random sample of 108 was classified as undergraduate students with majors in each of the aforesaid areas.

When cursory examination of the findings from the pilot study indicated justification of further study, the author was encouraged to do more extensive sampling on a broader geographic basis. Fortunately, and within certain limitations, the writer was able to replicate the original research design to include eighteen other institutions of higher learning.[1] (See Table 1)

In effect, this stratified, random population included St. Cloud State with three other colleges of the Minnesota State College System, and also two private colleges and one junior college from the state of Minnesota. In addition,

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[1] This second, replicated phase would never have been possible without the splendid personal efforts of many dedicated individuals - professors, students, and administrators. Special recognition has been given to these individuals elsewhere in this paper.

Table 1

Enrollment Figures for Nineteen Institutions of Higher Learning (i.e., Samples Drawn for the Replicated Study)[1]

Institution	Control	Level	Enrollment (all students)
1. City University of New York: H.H. Lehman College	Public	4 year	11,520
2. South Conn. State College	Public	4 year	12,513
3. Edinboro State College	Public	4 year	6,851
4. Morris Harvey College	Private	4 year	3,123
5. Ohio Wesleyan University	Private	4 year	1,413
6. University of South Florida	Public	University	18,011
7. Wayne State University	Public	University	35,655
8. Mich. State University	Public	University	44,092
9. Allegheny College	Private	4 year	1,811
10. University of Washington	Public	University	33,202
11. Calif. State College System: Chico State College	Public	4 year	13,168
12. El Camino Jr. College	Public	2 year	19,377
13. North Hennepin State Junior College	Public	2 year	2,012
14. College of St. Benedict	Private	4 year	736
15. St. John's University	Private	4 year	1,581
16. Bemidji State College	Public	4 year	5,100
17. Mankato State College	Public	4 year	12,363
18. Southwest Minnesota State College	Public	4 year	3,136
19. St. Cloud State College	Public	4 year	10,131

[1] Latest figures available. From: Opening Fall Enrollment in Higher Education, 1970: Report on Preliminary Survey, U.S. Department of Health, Education, and Welfare, OE - 54003 - 70.

three other state colleges - one each from the west coast, the Alleghenies, and the east coast - were selected.

Also included were four universities, another junior college, three other private colleges, and one public college from strategic locations across the country. Figure 2 illustrates the geographic distribution of this nationwide sample. In numbers, the samples ranged from twenty two to one-hundred twenty, with a total universe of thirteen hundred students at approximately the sophomore level.[1]

It should also be noted that, before beginning the replicated model, and in cooperation with representatives from a computer corporation, a machine-scored answer sheet was designed to accompany the relevancy inventory. This single page answer sheet, entitled "The Relevancy Index," utilized a stanine scale which afforded students responses to highly relevant, least relevant or undecided items.[2] Therefore, while it was important in the develop-

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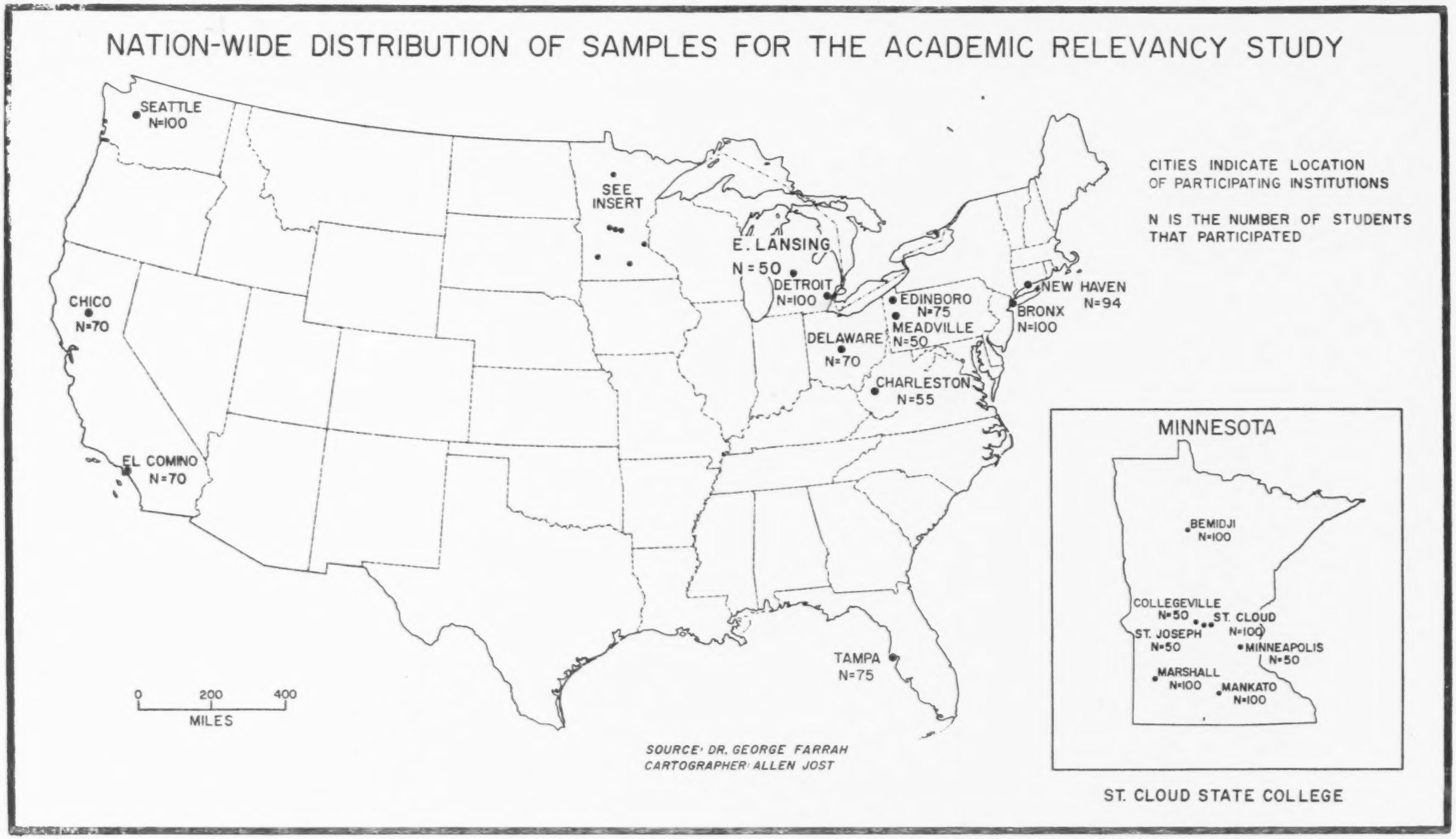
1 The discrepancy between these sample sizes and those shown on Figure 2 is due to sampling problems beyond the control of the cooperating institutions. Hence, in many instances the samples are either smaller or larger than the indicated number on the map.

2 In terms of the forty item inventory, and because students were solely responsible for the wording of the items, they took great care to avoid ambiguous items. Accordingly, during the pilot study phase, many items were re-worded. Yet, despite their caution and revisions, some students later remarked that certain of the items were "ambiguous!"

Figure 2



ST. CLOUD STATE COLLEGE

ment of a scale, the cumbersome, slower "Q-Sort" technique was replaced by the aforesaid index to allow for greater sample sizes.

The time period for the expanded replication model extended from January, 1971 to June, 1971. A small research grant awarded to this writer by his college made possible personal visitations to other campuses involved in the study. Accordingly, during the above period, the writer made trips to seven different campuses across the country in order to hold personal interviews with students, professors, and administrators who were involved in the nationwide study.[1]

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[1] For this purpose, the writer was graciously assisted by Dr. Gandi Rajender, Director of Research, School of Business, St. Cloud State College. I am deeply grateful for his efforts - especially the time he spent in visiting a campus on the west coast.

D. Analyses of Data: Phase I, The Pilot Study

This descriptive study did not involve any methodology for the improvement, etc., of academic relevancy, but, rather, involved hypotheses relating to student characteristics. Hence, for the purposes of this study, the items of the inventory are the dependent variables while, conversely, the student characteristics (i.e., sex, h.p.r., etc.) under examination may be regarded as independent variables.

However, if the results of the inventory were to have any meaning, then the primary task was to establish measures of validity and reliability.

After considerable analysis, an intercorrelation matrix was developed for the relevancy inventory. The column scores for the four factors involved are shown in Table 2. An inspection of these values reveal that the four factors described are dependent entities, and that the inventory, with the underlying global theories of self-concept and motivation, must be understood in terms of a total inventory score, rather than separate, independent factors. [1]

Surprisingly enough, and utilizing the Spearman Brown Split-Half-Reliability coefficients, the inventory proved to have a total score of .85. As indicated in Tables 3 and 4, the factor described as "Goal Needs," with r = .08, was

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[1] In many of the succeeding tables and appendices, especially the "Group Data Statistics," the items are identified and categorized according to the four factors described in Table 2. This procedure is justified because students originated and judged their items via these four factors.

the lowest of the four factors. Yet, when the total inventory score was tested for significance via the Person-Product-Moment method, the result for a 95 percent confidence interval was: $=.75 < p < .89$ (see Table 4).[1]

The analyses of means, in both phases, are based on mean stanine values. Moreover, in order to evaluate these data, both t tests and confidence intervals were utilized for a companion of sample means relating to student characteristics.

For example, in Tables 5 through 9, a total of 200 t tests are provided in order to determine the significant items for each characteristic.

Then, one may note that in Table 10, confidence intervals are provided for those items found to be significantly different via t tests. Of course, with so many t tests, there is always the possibility that many will have been "significantly different" merely by chance. Therefore, the use of confidence intervals buttresses the t tests and affords another yardstick for measuring the limits of the "true score" or stanine value.[2]

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1 Herein, so it seems, is more evidence for interpreting the inventory as a total score, rather than as four, separate entities.

2 This dual method of t tests and confidence intervals was used extensively during the second phase. In a very real sense, because relevancy of the items depended on one's vantage ground, the use of confidence intervals provided a set of norms for the particular institution by which it could - if so desired - make comparisons with other institutions of higher learning.

E. Analyses of Data: Phase II, The Replicated Study

In addition to the analysis of means employed for the initial phase, a more sophisticated and efficient method for analysis was utilized. Indeed, and with the splendid cooperation of the Computer Center at the University of Minnesota, a multivariate analysis of variance was accomplished.[1] This powerful tool enabled one to treat each of the forty items as a univariate entity, indicating at once the main or interacting effects of the students' characteristics involved, namely, sex, honor point ratio, school, and age.

However, as noted elsewhere, and because of the problems associated with unequal numbers in the cells (i.e., the students' characteristics), the decision was made to use the "weighted numbers" model. Hence, for this particular computer program, the original, total sample size of N = 1300 - efficient for analyses of means but not efficient for MANOVA - was reduced to = 1190. The four

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1 The writer is indebted to Dr. Douglas Anderson, both professor and research analyst at the computer center of of the Experimental Engineering Building, University of Minnesota. His kind assistance in setting up the program for the aforesaid multivariate analysis of variance, and his valuable suggestions relating to the problems associated with weighted versus unweighted numbers is deeply appreciated.

variables relating to characteristics indicate the following numbers:

1. Sex

	1. Sex	
1.1	Male	= 448
1.2	Female	= 742
	Total:	1190

2. Honor Point Ratio[1]

2.1	Low	= 395
2.2	Medium	= 513
2.3	High	= 282
	Total:	1190

3. School

3.1	Education	= 601
3.2	Liberal Arts & Sciences	= 589
	Total:	1190

(Here, again, data inspection revealed that these were the dominant schools or colleges sampled, with only a negligible sprinkling of others as school of business, school of technology, etc.)

4. Age

4.1	Under 20	= 479
4.2	Over 20	= 711
	Total:	1190

If, as suspected, academic relevancy involves a time-person-space (or in this particular case, <u>place</u>) continuum,

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[1] An inspection of the data revealed that these three divisions would produce a greater yield of information than the original intent to test high vs. low h.p.r.. Hence, these arbitrary divisions were defined as follows: Low h.p.r. = from 2.00 to 2.49; Medium h.p.r. = from 2.50 to 3.24; and High h.p.r. = from 3.25 to 4.00.

then special sampling procedures should be employed to test this supposition.

For example, in terms of time, are the forty academic relevancy items more or less relevant to the 1971 replicated group as compared to the 1970 pilot group? In terms of person, and because the items are dependent variables, what are the significant effects among student characteristics?

Then, in regard to place, what effect does distance have on academic relevancy? While the possible comparisons of geographic settings are numerous, unique, and highly interesting, only four such settings are utilized for what is referred to as "proximity sampling."[1] These four included the east coast, the Alleghenies, the midwest, and the west coast. In each setting, a comparison was made between a state college and another institution of higher learning - both public and private. Reference can be made to Appendix II, where these "Special Sampling Cases" are provided in Table 18.

Considerable effort was expended in data reduction and analyses of MANOVA.

First, as noted in Table 19 a frequency chart was made of Significant interactions among twenty-nine relevancy items with values more than 6.00 (a similar chart was made

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[1] Ideally, the replicated model could have included the southern region and other localities, but, because of limited funds, staff, and time, this extension was impossible.

for values less than 6.00, and these are presented in Table 20).

Second, in order to plot the angular separations or distances of mean stanine values, graphic interpretations of the four characteristics were made and are given in Table 21.

Third, via various tabular forms, a comparison of mean scores in relation to significant interactions was made and these appear in Table 22.

Finally, in order to indicate the converging student characteristics upon each item, a description - in descending rank order (i.e., from highest to lowest relevancy) - is provided showing main effects and other interactions.

The findings and interpretations resulting from these analyses are presented next.

F. Findings and Interpretation: The Pilot Model

As previously moted, various tests of significance were made of means and variances. For example, after establishing confidence intervals such tests as the t (small sample), and the test for unequal variances (F ratio) were utilized.[1]

The findings reported here (and also for the Replicated Model) are of two types: general and specific.

Findings (General)

1. An analysis of the total sample (N = 108) mean stanine values for each of the 40 academic relevancy items revealed that 22 (or 55 percent) of these items were rated as "more relevant" (i.e., stanines 6.00 to 7.66, that 15 (or 38 percent) were rated as "undecided"(i.e., stanines 4.01 to 5.93), and that 3 (or 7 percent) were rated as "less relevant". For a better understanding of the scaling procedure, Figure 3 illustrates the normal curve with corresponding stanine values used in the academic relevancy inventory. Here, the limits are indicated for items less relevant (i.e., 1.00 to 3.99), for the undecided items (i.e., 4.00 to 6.00), and for the items more relevant (i.e., 6.01 to 9.00).

2. An inspection of the standard deviations for each of the items indicated a range extending from 2.50 (Item 27) to 3.63 (Item 33). Hence, these standard deviations appear to be fairly uniform with 25 items falling between s.d.'s of 2.50 and 2.99 and 15 items falling between s.d.'s of 3.01 and 3.63.

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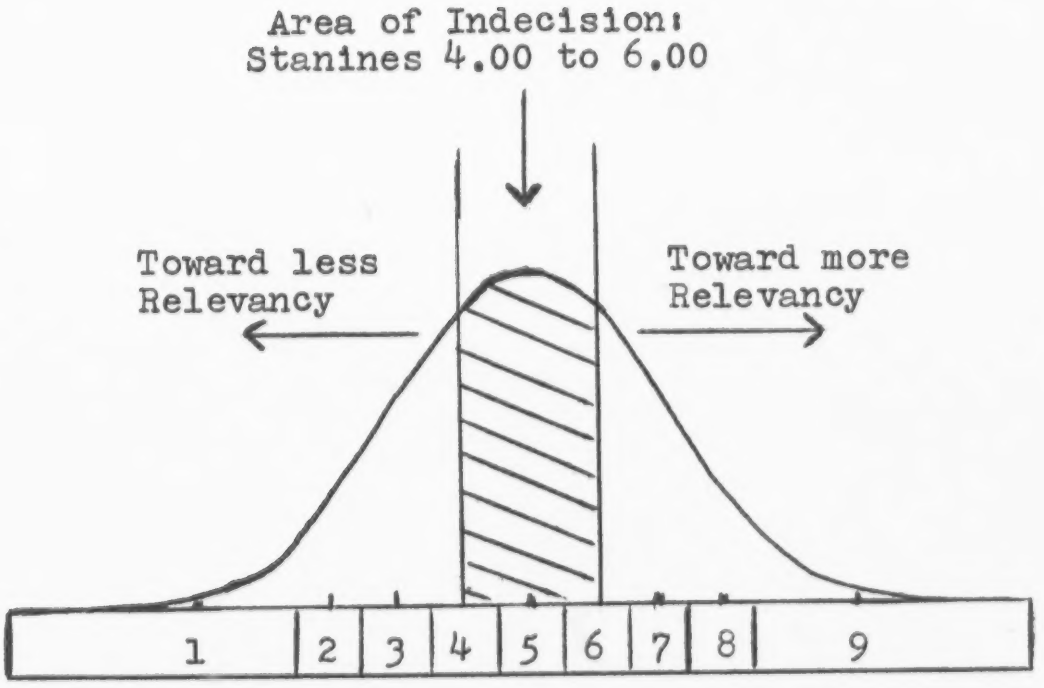
[1] "See Appendix I, Tables 5 through 10.

Figure 3

The Normal Curve with Corresponding
Stanine Values Used in the
Academic Relevancy Inventory
N = 1300



Stanine 4.00 is the high of the items scored as less relevant. Hence, for the indecisive items, accept those items higher than 4.00.

Stanine 6.00 is the low of the items scored as more relevant. Hence, for more relevant items, reject those items lower than 6.00.

Findings (Specific)

1. In terms of sample mean scores, significant differences were found among the student characteristics designated as sex, honor point ratio, age, military service, and marital status (See Appendix I, Tables 5 through 9).

2. A total of 14 tests of significant differences were found, and 11 (or 79 percent) of these were within the theoretical constructs of self-concept, while 3 (or 21 percent) were within the theoretical domain of motivation (See Appendix I, Table 11).

3. There were varying degrees of academic relevancy, on a "more or less" scale, but, of the total 200 tests (i.e., 40 items times 5 characteristics), of significance, only 14 or 7 percent of these differences among student characteristics were significant (See Appendix I, Table 12). A comparison of the relevancy of items with various student characteristics reveals the following:

   3.1 That for the characteristic of sex, 5 out of the 6 significantly different items were more relevant for females than males. In two items (13 and 17), the scores for males were in the undecided region.

   3.2 That for the characteristic of honor point ratio, the only significnatly different item (22) was one of indecision for the low h.p.r. (i.e., stanine 4.94), and less relevant for the high h.p.r. (i.e., stanine 3.16).

   3.3 That for the characteristic of age, the only significantly different item (9) was more relevant for the student under 20 (i.e., stanine 7.28) than it was for the student over 20 (i.e., stanine 6.05).

   3.4 That for the characteristic of military service, the only significantly different item (10) was more relevant for the veteran (i.e., stanine 7.92), than it was for the non-veteran (i.e., stanine 6.33).

3.5 That for the characteristic of marital status, all 5 items were more relevant for the married student than they were for the single student. However, in two items (15 and 34), scores for the single student were in the undecided region.

Interpretation

Based on the above findings, the following is evident:

1. That this pilot sample appraised for academic relevancy was generally homogeneous.

2. That academic relevancy rightfully belongs to the reference field of self-concept and motivation, including the subsidiary, dependent factors of self-adequacy, role expectations, goal needs, and personal investment (previously termed "failure avoidance").

3. That from this latter approach, academic relevancy is found to be a generalized dynamic phenomena involving a time-person-space continuum.

4. That relevancy is a problem involving the affirmation or denial of values, ideas, habits, or traits, as expressed in the items of the inventory originated by students.

5. That in terms of student characteristics:

   5.1 The male student regards understanding and the application of knowledge as most relevant. Hence, it is suspected that, when, for whatever reasons, he cannot apply this knowledge, or when he fails in a major academic effort, he is prone to the expectations of others, to the "other directness". Hence, rather than a quest for personal, life-long relevancy involving <u>many alternatives</u>, the process is <u>defined</u> for him, and consequently, relevancy becomes <u>social</u> by definition - something utilitarian or temporal.

   5.2 Apparently, both male and female students experience an enormous pressure to succeed, and academic relevancy appears to be related

to forces converging upon them.[1] For example, high grades are more relevant to students under 20 than to those over 20.

5.3 In the case of female students, a dominant theme is the great concern for avoiding failure and for living up to one's role as a professional person. This need is also characteristic of veterans and married students.

5.4 Most students seek acceptance from others. For example, there is a craving for recognition and identity as an adult. Yet, a paradox exists: while these young adults are "ready" for the <u>experience</u> of the adult world, society is reluctant to recognize them as <u>bona fide</u> adults. Hence, there appears to be a high relationship of the <u>quality of student experiences</u> with academic relevancy.

Finally, a methodology and strategy has been found to study the relationship of the aforesaid student characteristics with academic relevancy, especially in terms of homogeniety versus heterogeniety.

The findings and interpretations for the expanded, replicated model are considered next.

G. Findings and Interpretation: The Replicated Model

Findings (General)
Analyses of Means

1. An analysis of the total mean stanine values for each of the 40 academic relevancy items revealed

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[1] This interpretation is also shared by Dr. Woodburn C Ross, Dean, Monteith College, Wayne State University. Transcript of an interview with Dean Ross and the author relating to Academic Relevancy, Radio Station KVSC-FM, St. Cloud State College, May 20, 1970.

that 29 (or 73 percent) of these items were rated as "more relevant" (i.e., stanines 6.04 to 8.44), that 11 (or 27 percent) were rated as "undecided" (i.e., stanines 4.22 to 5.93), and that none was rated as less relevant (i.e, less than 4.00), Tables 13 and 14 provide complete listings of all items that were either relevant or indecisive.

2. That standard deviations indicated a range extending from 1.45 (Item 10) to 3.08 (Item 39). It should be noted that 36 of the 40 items have a standard deviation range of 2.09 to 2.98; hence, they are extremely uniform. Both Tables 13 and 14 show the S.D.'s in relation to the ranking and relevancy of each item in terms of stanines 1 to 9.

3. With literally thousands of tests involved in the analyses of means among the nineteen institutions of higher learning, especially in regard to t tests, it is always possible for many of the alleged significant differences to have occured merely by chance. In order to reduce this risk, confidence intervals were utilized to buttress the t tests, and to provide sets of norms whereby the means of one campus could be compared with the means of another. A summary sheet indicating the nature of agreement between confidence intervals and t tests is provided in Table 15. Therein, it may be observed that, with the exceptions of five campuses, there is a surprisingly high agreement among colleges and universities. There is a range of agreement extending from a low of 23 percent to a high of 95 percent.[1] However, excluding the low agreements of the aforesaid five institutions, the percent of agreement among the remaining fourteen increases from 60 percent to 95 percent. (The reader may refer to complete sets of t tests in Appendix II, Table 15, or to the confidence intervals which appear in Appendix II, Table 1[illegible], or to Appendix II, Table 16).

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[1] The percent of agreement is always in terms of another college as compared to the St. Cloud Pilot Study. Obviously, this methodology affords any one campus the opportunity to compare its own mean scores with those of any other campus. Various random samples were drawn to ensure comparison of comparable numbers.

4. A further inspection of "Vantage Points" on the Summary Sheet provided in Table 15 reveals that 10 institutions were in perfect agreement (i.e., two times out of three via confidence intervals on t tests) with the St. Cloud Pilot Study. In the case of St. Cloud vs. St John's, the agreement was perfect three times out of three.

5. Not one item of the forty was judged less than stanine 4.00, the area of no relevancy.

Findings (Specific)
Analyses of Means

1. In terms of sample mean scores, significant differences were found in each of the participating colleges and universities in comparison with St. Cloud. Utilizing the t test as the ultimate yardstick, the rejections of Ho ranged from a low of 2 (St. John's) to a high of 26 (University of Washington). Hence, the <u>average</u> rate of rejections for all is approximately 9, and the corresponding <u>average</u> agreement between these campuses and St. Cloud is 78 percent. (See Appendix II, Table 16).

2. There were, among the nineteen campuses, varying degrees of academic relevancy on a "more or less" basis. For example, in comparison with St. Cloud, Item 10 was more relevant for sixteen institutions, Item 18 was more relevant for eight colleges; and in descending order, Items 17, 19 (7 each), 28 (6 each), 8 and 39 (5 each). Conversely, Items 24 (11), 21 (7), 31 (6), 7, and 29 (5 each) were less relevant. In both of the above cases of more or less, the remaining items, though thinly spread, were represented among the participating institutions.[1]

3. Among the significant differences found within the eighteen institutions of higher learning as compared to St. Cloud, a total of 74 frequencies was rated as "more relevant" for

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[1] In the "more relevant" column, Items 9, 15, 21, 24, 29, 31, 32, and 36 were not significnatly different; and in the "less relevant" column, Items 3, 8, 16, 18, 22, and 38 were not significantly different.

the theoretical constructs of self-concept and motivation. These 74 frequencies are distributed as follows: S.A. = 14 (6 items); R.E. = 26 (6 items); F.A. = 16 (6 items); and G.N. = 18 (6 items).[1] On the other hand, a total of 70 frequencies was rated as "less relevant" for the theoretical aspects. The distribution, affording comparisons between other institutions and St. Cloud, is as follows: S.A. = 28 (9 items); R.E. = 6 (4 items); F.A. = 13 (5 items); and G.N. = 23 (6 items).

4. Apparently the factor of time is not significant. A comparison of the mean stanine values of the Pilot Study with the Replicated Model reveals an agreement of 85 percent. (See Table 15).

5. Geographic location is not a significant factor. For example, the agreement between H. H. Lehman College (located in the Bronx) and St. Cloud is 90 percent. Yet, if one examines the scores given in Table 18 entitled "Special Sampling Cases," it can be noted that the agreement between St. Cloud and North Hennipin Junior College - located 70 miles south of St. Cloud - is only 40 percent!

6. Also under "Special Sampling Cases" (See Appendix II, Table 18) the following comparisons are evident:

   6.1 The east coast: H.H. Lehman versus Southern Connecticut State College; 88 percent agreement.

   6.2 The Alleghenies: Edinboro State College versus Allegheny College; 35 percent agreement.

   6.3 The midwest: St. Cloud State College versus St. John's (95 percent agreement); S.C.S.C. versus St. Benedict (78 percent agreement); S.C.S.C. versus North Hennepin

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[1] The 74 items cited above as more relevant are within the range of stanines 6.04 to 8.44, as are the 70 items listed as less relevant.

Jr. College (40 percent agreement); S.C.S.C. vs. Southwest State College at Marshall (60 percent agreement); and S.C.S.C. vs. Bemidji (88 percent agreement). [1]

6.4 The west coast: Chico State College versus El Camino Junior College[2] (88 percent agreement).

7. In terms of student characteristics, these comparisons involving various random sample sizes drawn from the total universe of N = 1300, are available:

7.1 Male students (N = 60) vs. St. John's University (all male), 95 percent agreement.

7.2 Female students (N = 60) vs. St. Bendict College (all female); 93 percent agreement.

7.3 Both Male and Female (N = 60 each) vs. the St. Cloud Replicated Model (N = 120), 73 percent agreement. [3]

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1 In order to avoid repetition, St. Cloud State College is abbreviated to S.C.S.C.. It should also be noted that St. John's is a Catholic, all-male university, and that St. Benedict is a Catholic, all female college. Essentially, both St. John's and St. Benedict are small liberal arts institutions located within an immediate beautiful campus setting approximately 3 to 5 miles apart and about 20 miles from S.C.S.C.. Mankato, Southwest, and Bemidji are all within the structure and organization of the Minnesota State College System, while North Hennepin Junior College is within the Minnesota Junior College System, and is located on the western limits of Minneapolis (See Figure 2).

2 El Camino is a very large Junior college located within the Los Angeles Metropolitan area, and Chico, of the California State College System, is located approximately 450 Miles north of Los Angeles.

3 See Table 18, "Special Sampling Cases".

Findings (General)
MANOVA

1. An analysis of twenty-nine relevancy items with stanine values more than 6.00 indicates the following:

   1.1 A total of 82 significant interactions was found among student characteristics listed as sex, h.p.r., school, and age.

   1.2 The type involving main effects totaled 41; those involving first order interactions totaled 27; those involving second order interactions totaled 13; and one involving a third order interaction totaled 4.

   1.3 The most significant factor was sex (i.e., 47 significant interactions); then school (i.e., 40 significant interactions); then age (i.e., 30 significant interactions), and finally, H.P.R. (i.e., 21 significant interactions). [1]

2. Conversely, an analysis of eleven items with stanine values less than 6.00 indicates a total of 26 significant interactions distributed and summarized as follows:

   2.1 Main Effects = 11
   First Order = 8
   Second Order = 7
   Third Order = 0
   Total = 26

   2.2 Sex = 16 Significant Interactions
   2.3 Age = 15 Significant Interactions
   2.4 School = 10 Significant Interactions
   2.5 H.P.R. = 7 Significant Interactions

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[1] See both Tables 19 and 20.

3. As shown below, and with the exceptions of age and school, the factors were ranked the same with items more or less than stanine 6.00:

More than 6.00	Less than 6.00
3.1 Sex	3.1 Sex
3.2 School	3.2 Age
3.3 Age	3.3 School
3.4 H.P.R.	3.4 H.P.R.

4. For mean stanine values more than 6.00, 38 were significant at the .05 level, and 44 were significant at the .01 level. On the other hand, for those mean stanine values less than 6.00, 12 were significant at the .05 level, and 14 were significant at the .01 level.

5. An inspection of the graphic interpretations (See Table 21) relating to main effects reveal that the profiles of the four factors are remarkably similar; there are corresponding high points and low points among the forty items. Again, in terms of the four factors, the greatest angular separations or distances between mean stanine values appears to be the factor of sex (i.e., items 2, 6, 7, 13, 16, 33, 34, and 35), while the distances among the other three factors are not as marked or dramatic.

Findings (Specific)
MANOVA

In order to appraise the impact or convergence of various student characteristics upon the forty items, these findings are derived from a comparison of mean scores in relation to significant interactions. [1]

At this point, in order to understand the relationship of the mean stanine score to the meaning of the item, a

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[1] For a complete listing of these tabular values, see Appendix II, Table 22.

verbatim description of the twenty-nine relevant items is provided below. (See Table 23). In each item, the significant main effects or interactions are analyzed to determine the nature of the difference.[1] As a further comparison, the mean stanine value for each item is given (i.e., for N = 1300).

Moreover, the mean stanine values for the main effects or interactions of any given item are already known to be significant, and these MANOVA findings require no further testing. Hence, a consistent method employed in reporting the stanine values for each item is as follows:

1. The highest value for any characteristic <u>within a set</u> of significant interactions (i.e., Sex, Sex x Age, Sex x School, etc.) is given for "more" relevancy.

2. Conversely, the lowest value for any characteristic <u>within a set</u> of significant interactions is given for "less" relevancy.

In this manner, an efficient, convenient comparison is provided between the mean stanine value after the question (or item) for N = 1300, and the more particular mean stanine value in the finding itself. Stated another way, a comparison is provided for sample versus universe.

Item	Significant Interactions
10. If you found your occupation rewarding and worthwhile? (x = 8.44)	Sex x Age x School *[2]

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[1] For a sample of the print-out sheets, see Appendix II, Table 24.

[2] Significance: * p < .05; ** p < .01

Findings:

10.1 More relevant for females under 20 in Education (8.70).

10.2 Less relevant for males under 20 in the same schools (8.14).

29. If, when you finish college, you feel ready and extremely confident to enter your chosen field? ($\bar{x}$ = 7.77)

Sex **
School *
Sex x H.P.R. x School**

Findings:

29.1 More relevant for females of average H.P.R. in Arts and Sciences (8.05).

29.2 Less relevant for males in the same schools (7.41).

21. If you got the only A on a very difficult test? ($\bar{x}$ = 7.60)

Sex *
Age *
Age x Sex *

Findings:

21.1 More relevant for females under 20 (7.94).

21.2 Less relevant for males over 20 (7.28).

20. If you were offered a fascinating job starting at $20,000 yearly? ($\bar{x}$ = 7.32)

Sex x H.P.R. x Age x School*

Findings:

20.1 More relevant for females of average H.P.R., over 20, in Education (7.97).

20.2 Less relevant for females of high H.P.R., over 20, in Schools of Arts and Sciences (6.80).

20.3 Generally, in Arts and Sciences, and regardless of age and sex, the higher the H.P.R., the less relevant in this item.

13. If after studying for hours, you still failed a test? ($\bar{x}$ = 7.31)

Sex **
School **
Sex x Age **

Findings:

13.1 More relevant for females under 20, in Education (7.83).

13.2 Less relevant for males over 20, in Arts and Sciences (6.43).

35. If all that you believed in were suddenly "knocked" from under you? ($\bar{x}$ = 7.27)

Sex **
Age *
School *
Sex x Age *

Findings:

35.1 More relevant for females under 20, in Education (7.75).

35.2 Less relevant for males under 20 in Arts and Sciences (6.46).

28. If you had a poor teacher for a subject you were really interested in? ($\bar{x}$ = 7.25)

School *
Age *
Sex x H.P.R. **

Findings:

28.1 More relevant for females of low H.P.R., under 20, in Education (7.40).

28.2 Less relevant for males of low H.P.R., over 20, in Arts and Sciences (6.58).

28.3 Generally, with males, regardless of school, the higher the H.P.R., the more relevant is this item.

11. If you were failing a test? ($\bar{x}$ = 7.24)

Sex **
Age x School **
Sex x School **

Findings:

11.1 More relevant for females over 20, in Education (7.63).

11.2 Less relevant for males over 20, in Arts and Sciences (6.39).

7. If you discovered that someone had given you a very poor recommendation for your chosen profession? ($\bar{x}$ = 7.16)

Sex **
Sex x H.P.R. x School *
Sex x School *

Findings:

7.1 More relevant for females of high H.P.R. in Education (7.57) and for females of average H.P.R. in Arts and Sciences (7.57).

7.2 Less relevant for males of high H.P.R. in Arts and Sciences (6.31).

7.3 Generally, for males in Arts and Sciences, the higher the H.P.R., the less relevant is this item.

26. If you were told that understanding and application of knowledge were more important than receiving good grades? ($\bar{x}$ = 7.12)

Sex x Age x School **
Sex x Age **

Findings:

26.1 More relevant for females, under 20, in Education (7.27).

26.2 Less relevant for males, over 20, in the same school (6.82).

37. If after preparing for a certain position, you discover that they have reassigned you to a more responsible and challenging task? ($\bar{x}$ = 7.08)

Sex x H.P.R. x Age **
Sex x Age *

Findings:

37.1 More relevant for females under 20, with high H.P.R. (7.44).

37.2 Less relevant for males, under 20, with low H.P.R. (6.44).

40. If you could be understood by your instructor? ($\bar{x}$ = 7.07)

Age **
Sex x School *

Findings:

40.1 More relevant for females under 20, in Arts and Sciences (7.35).

40.2 Less relevant for males, under 20, in the same school (6.92).

12. If you were put into a position of helping people develop or set life-time goals? ($\bar{x}$ = 7.03)

School *
Sex *
Sex x School *
Sex x H.P.R. **

12.1 More relevant for females, with high H.P.R., in both Education and Arts and Sciences (7.35).

12.2 Less relevant for males, with low H.P.R., in Arts and Sciences (6.61).

12.3 Generally, for both males and females, the higher the H.P.R., the more relevant is this item.

6. If your actual role as a professional person (after graduation) was not up to the expectations or standards in your field? ($\bar{x}$ = 7.01)

School *
Sex x Age x School **

Findings:

6.1 More relevant for females, under 20, in Education (7.39).

6.2 Less relevant for males, under 20, in Arts and Sciences (6.35).

6.3 Generally, regardless of one's sex, in Education, this item is less relevant for those over 20; and inversely, in Arts and Sciences, this item is more relevant for those over 20.

25. If 3 out of 4 of your teachers said that you were a very efficient person? ($\bar{x}$ = 7.01)

Sex **
School *

Findings:

25.1 More relevant for females in Education (7.15).

25.2 Less relevant for males in Arts and Sciences (6.80).

17. If you could not understand a particular personal problem ($\bar{x}$ = 6.97).

School **
H.P.R. **
H.P.R. x Age **
Sex x H.P.R. **

Findings:

17.1 More relevant for females, under 20, with high H.P.R., in Education (7.49).

17.2 Less relevant for males over 20, with both low and high H.P.R., in Arts and Sciences (6.59).

23. If you repeatedly failed in what you tried? ($\bar{x}$ = 6.94)

Sex **
H.P.R. x Age **
Sex x School *

Findings:

23.1 More relevant for females, under 20, with both average and high H.P.R., in Arts and Sciences (7.22).

23.2 Less relevant for males, over 20, with high H.P.R., in the same school (6.48).

24. If your ideas and goals were accepted by your classmates with enthusiasm and excitement? ($\bar{x}$ = 6.92)

Sex **
Sex x School *

Findings:

24.1 More relevant for females in Arts and Sciences (7.16).

24.2 Less relevant for males in the same school (6.53).

2. If you discovered you were in the wrong field of study? ($\bar{x}$ = 6.90)

Sex **
School **

Findings:

2.1 More relevant for females in education (7.25).

2.2 Less relevant for males in Arts and Sciences (6.49).

19. If you failed an important requirement necessary for your field, would you continue in this major? ($\bar{x}$ = 6.89)

Sex x H.P.R. x School **
H.P.R. x Age x School *

Findings:

19.1 More relevant for males, under 20, with low H.P.R., in Education (7.44).

19.2 Less relevant for females, over 20, with high H.P.R., in Education (5.81).

19.3 Generally, in terms of one's sex, with the exception of males in Education and females in Arts and Sciences - both with average H.P.R. - the higher the H.P.R., the less relevant is this item.

19.4 Generally, in terms of school, with the exceptions of those under 20 in Education and those over 20 in Arts and Sciences - both with average H.P.R. - the higher the H.P.R., the less relevant is this item.

36. If you were offered a substantial grant to do graduate work immediately following graduation? ($\bar{x}$ = 6.63)

Sex x Age X School *

Findings:

36.1 More relevant for females, under 20, in Arts and Sciences (6.93).

36.2 Less relevant for females, over 20, in Education (6.37).

4. If upon graduating with a B.S. degree in your profession, you were interested in another occupation? ($\bar{x}$ = 6.35)

Sex **
School **
Sex x H.P.R. **

Findings:

4.1 More relevant for females, with high H.P.R., in Education (6.74).

4.2 Less relevant for males, with average H.P.R., in Arts and Sciences (5.80).

1. If you had to work your way through college? ($\bar{x}$ = 6.19)

School **
Sex x H.P.R. *

Findings:

1.1 More relevant for males, with average H.P.R., in Education (6.50).

1.2 Less relevant for males, with high H.P.R., in Arts and Sciences (5.80).

1.3 Generally, with females, the higher the H.P.R., the more relevant is this item

16. If you were told that in order to be an efficient person in your field, you had to meet your goals? ($\bar{x}$ = 6.15)

Sex x School **
Sex x Age x School **
H.P.R. x Age x School **
Age x School *
School *

Findings:

16.1 More relevant for females, under 20, with high H.P.R., in Education (6.45).

16.2 Less relevant for males, over 20, with average H.P.R., in Arts and Sciences (5.68).

16.3 Generally, in both schools, with those under 20, the higher the H.P.R., the more relevant is this item

39. If you were caught cheating? ($\bar{x}$ = 6.04)

School **
Sex x School **
Sex x Age *
Sex *

39.1 More relevant for males, under 20, in Education (6.53).

39.2 Less relevant for males, over 20, in Arts and Sciences (5.73).

30. If you suddenly discovered that you had been deceived in what you thought you really wanted (i.e., you had been "brainwashed" by parents, teachers, etc.)? ($\bar{x}$ = 6.55)

Sex x H.P.R. x School**
Age **
Sex *
Sex x Age x School*
School *
H.P.R. x Age *

Findings:

30.1 More relevant for females, uner 20, with low and average H.P.R., in Education (7.05).

30.2 Less relevant for males and females, over 20, with average H.P.R., in Arts and Sciences (5.90).

30.3 Generally, for those over 20, regardless of sex or school, this item is less relevant.

33. If you realized that your feeling of self-adequacy was low in respect to the life goals that you had set? ($\bar{x}$ = 6.45)

Sex **
H.P.R. x Age **
Age x School *
School *

Findings

33.1 More relevant for females, under 20, with high H.P.R., in Education (6.82).

33.2 Less relevant for males, over 20, with average H.P.R., in Arts and Sciences (6.15).

33.3 Generally, in either case of under or over 20, this item is more relevant for those in Education than those in Arts and Sciences (6.15).

33.4 Generally, for those under 20, the higher the H.P.R., the more relevant is this item.

15. If failing terminated your desire to achieve?

Sex *
H.P.R. **
School *
H.P.R. x Age *

Findings:

15.1 More relevant for females, over 20, with low H.P.R., in Education (6.78).

15.2 Less relevant for both males and females, over 20, with average H.P.R., in Arts and Sciences (5.97).

Findings:

39.1 More relevant for males, under 20, in Education (6.53).

39.2 Less relevant for the male, over 20, in Arts and Sciences (5.73).

9. If you got an A in an important subject without really trying? ($\bar{x}$ = 6.04)

Age **
Sex **

Findings:

9.1 More relevant for females under 20 (6.30).

9.2 Less relevant for males over 20 (5.78).

* * * * * * * * * *

A note of explanation is necessary before presenting the findings related to the last eleven items.[1]

First because these items are within the area of indecision (i.e., stanines 4.00 to 6.00), there is the semantic difficulty of interpreting the words "more" or "less" within this area of doubt.

Second, in order to follow the pattern established for the previous twenty-nine items, the following technique will be employed:

1. Stanine 5 is the pivotal point or value of absolute doubt or indecision, therefore:

2. Any value <u>greater</u> than 5 tends <u>toward</u> "more" relevancy, as small as the value may seem. For

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[1] A verbatim description of these eleven items indicating the F Ratio and levels of significance will be found in Appendix II, Table 25.

example, the value of 5.93 will mean an amount of +93 (+5.93 - .93) toward more relevancy.

3. Any value less than 5 tends toward "less" relevancy, as small as the difference may seem. For example, the value 4.88 will mean an amount of -12 (5.00 - 4.88) toward less relevancy, as the negative signs will connote values to the left of 5.00.

34. If the expectations of your instructors are far greater than your efforts? ($\bar{x}$ = 5.93)

Sex x Age x School *
Sex **
School **
Age *

Findings:

34.1 More relevant for females, under 20, in both schools (6.38 or + 1.38).

34.2 Less relevant for males, over 20, in Arts and Sciences (5.25 or + 1.25).

32. If you discovered that your main goal in life was easily attainable? ($\bar{x}$ = 5.86)

Sex x Age x School **

Findings:

32.1 More relevant for females, under 20, in Arts and Sciences (6.21 or + 1.21).

32.2 Less relevant for males, under 20, in the same school (5.25 or + .25).

8. If someone advised you that, before electing a major, you should "know yourself" before deciding what you want in life? ($\bar{x}$ = 5.85)

Sex x School **
Sex x Age *

Findings:

8.1 More relevant for females, under 20, in Education (6.22 or + 1.22).

8.2 Less relevant for males, under 20, in the same school (5.63 or + .63).

3. If flunking a test did not bother you? ($\bar{x}$ = 5.85) — Sex x Age x School*

Findings:

3.1 More relevant for males, under 20, in Arts and Sciences (5.94 or +.94).

3.2 Less relevant for males, under 20, in Education (5.22 or +.22).

3.3 Generally, this item involves inverse values for both males and females within each age category, and for both schools. For example, in Education, the males under 20 (5.22), have a lower score than the females under 20 (5.79), but the males over 20 (5.86), have a higher score than the females over 20 (5.72). Inversely, in Arts and Sciences, the males under 20 (5.94) have a higher score than the females under 20 (5.39), but the males over 20 (5.44), have a lower score than the females over 20 (5.86).

27. If you knew that you were a disruptive influence in your class? ($\bar{x}$ = 5.13). — H.P.R. *

Findings:

27.1 More relevant for low H.P.R. (5.43 or +.43).

27.2 Less relevant for average H.P.R. (4.96 or -.04).

14. If you told your parents that you took part in a peace demonstration to which they were opposed? ($\bar{x}$ = 4.88) — Sex x Age **; Sex **

Findings:

14.1 More relevant for females under 20 (5.17 or +.17).

14.2 Less relevant for males over 20 (4.64 or -.36).

14.3 Generally, regardless of age, this item is more relevant for females.

18. If you were staying in college only to please your parents and friends because you did not want to disappoint them? ($\bar{x}$ = 4.67)

Sex **
H.P.R. **
School *

Findings:

18.1 More relevant for females with low H.P.R., in Education (4.97 or -.03).

18.2 Less relevant for males, with average H.P.R., in Arts and Sciences (4.32 or -.68).

5. If your friends felt that you would never graduate from college? ($\bar{x}$ = 4.61)

Sex x Age x School **

Findings:

5.1 More relevant for males, under 20, in Education (5.14 or +.14).

5.2 Less relevant for males, over 20, in Arts and Sciences (4.36 or -.64).

5.3 Generally, in Arts and Sciences, regardless of age, females have higher scores.

38. If you could convince others to elect you to the student senate or to some other important college office? ($\bar{x}$ = 4.61).

Sex x Age x School *
Sex x Age *
H.P.R. x Age **

Findings:

38.1 More relevant for males, under 20, with average H.P.R., in Education (4.76 or -.24).

38.2 Less relevant for females, over 20, with high H.P.R., in Arts and Sciences (4.48 or -.52).

38.3 Generally, the higher the H.P.R., the less relevant is this item.

22. If your relatives look at you as a poor example of thier ideals? ($\bar{x}$ = 4.41)

Sex x Age x School **

Findings:

22.1 More relevant for females, under 20, in Arts and Sciences (4.60 or -.20).

22.2 Less relevant for males, over 20, in Education (4.19 or -.81).

22.3 Generally, regardless of age or school, females have higher scores.

31. If you could not make an athletic team because of low grades? ($\bar{x}$ = 4.22)

Sex x H.P.R. x Age *
Sex x Age *
Sex **
H.P.R. x School **
H.P.R. x Age **
H.P.R. *
Age *

Findings:

31.1 More relevant for males, under 20, with low H.P.R. in Education (5.14 or +.14).

3.12 Less relevant for females, over 20, with high H.P.R., in Arts and Sciences (3.51 or -1.49).

31.3 Generally, regardless of age, males have higher scores.

31.4 Generally, regardless of sex, those under 20 have higher scores.

3.15 Generally, the higher the H.P.R., the less relevant is this item.

Interpretation:

From the wealth of information provided by the analyses of means and by MANOVA, the aforesaid findings reveal:

1. That the homogeneity noted in the pilot sample is evident in the replicated study. In this respect, the body of information (i.e., the forty items) originated during the initital phase had, with very few exceptions, relevancy for the majority of students involved in the final phase. These contrasts or exceptions are also evident:

   1.1 Contrary to one's expectations, the factor of distance, especially when two institutions of learning are within close proximity, does not ensure high agreement or relevancy between these two bodies of students. In this respect, the greatest differences seem to occur between <u>diverse</u> <u>types</u> of institutions, such as a state college compared to a large university. One would expect that the greater a particular university or college population, the more heterogeneous and diversified will be the students in terms of purposes, traits, life styles, etc.. Hence, the students' responses to a relevancy inventory should be expected to vary - especially when the latter illustration is contrasted with a smaller, homogeneous setting (i.e., compare the mean stanine values of St. Cloud State versus the University of Washington, or S.C.S.C. versus North Hennepin Junior College).

   Moreover, in respect to place, when the results of one's earning power is considered, the location of the college is indeed a significant factor. Differentials in the cost of living between two institutions which are strategically located (i.e., a small midwestern college versus a large, urban west coast college) may produce varying degrees of relevancy on a more or less scale (i.e., compare S.C.S.C. with El Camino Junior College).

1.2 Apparently, as judged from the high agreement between students of small, private institutions and those of a moderate size state college, the programs or curricula do not affect the relevancy of items tested (i.e., compare S.C.S.C. with St. John's and with St. Benedict).

1.3 The comparison of students at S.C.S.C. during the year of 1970 (i.e., the Pilot Model) with those at S.C.S.C. in 1971 i.e., the Replicated Model) sheds some light on the time factor. If anything, of the six items that revealed no agreement, five of these items were more relevant for the 1971 study. Of course, while it was not possible to test the same population at both of the aforesaid times, it is interesting to note this increase in relevancy from a different population. Yet, in terms of other general comparisons, the agreement between the two time periods is among the highest, namely, 85 percent. Therefore, for this given set of items and for this variance in population, the passage of time is not a significant factor.

2. That the differences among student characteristics hypothesized for the pilot study are validated in the replicated model.

2.1 Overwhelmingly, and in a most dramatic way, of the twenty-nine items judged to be relevant, twenty-six of these were more relevant for the female than for the male. Since it may be inferred that the aforesaid items are of an immediate - intrinsic nature, this preponderance (of more relevancy) suggests a greater advantage in maturity for females. This stark contrast clearly demonstrates that the female, of sophomore standing, in schools of education, are prepared for entrance into a definite, professional field. However, because females in Education are in the majority, and because a surplus of teachers now exists, there are ominous signs that the advantages afforded by a rate of earlier maturity may be offset by supply and demand.

2.2 A well-defined pattern also characterizes the male over 20 years of age, for whom less relevancy exists. Unlike the female geared to following a definite program, the male gropes, and continues to seek new interests, awarenesses, and appreciations. The pursuit of academic success, the careful preparation for a high-paying job, and other well-established traditional goals do not seem to preoccupy the male over 20. Rather, in place of the latter, one discerns an idealism for less materialistic goals than the mainstream of middle-class America offers. Herein, is a major shift of interest for those extrinsic-fulfillment goals, carefully cultivated, well-planned in advance, and achieved in a definite time period. Herein, it is suspected, there is also a role-inversion of items that should be more relevant for the male than for the female! Herein, one can also sense the female's quest for independence, her reluctance to be satisfied with the secondary roles generally assumed to be her lot or fortune.

2.3 For both sexes under 20, the primary immediate consideration is academic success. The pressure for good grades is especially important to the male with a low or average H.P.R., because he faces the constant threat of military induction. Since he often lacks confidence, the failure of a major requirement can be devastating to his academic morale. Faced with the same critical threat of failure, the female under 20, because of her greater maturity, is better able to cope with those academic pressures.

However, regardless of one's sex, the students of average H.P.R. have all that they can do to succeed, without any additional pressures.

2.4 Apparently, high H.P.R. is associated with the leadership qualities of responsibility, with a willingness to attempt new tasks and projects, with the ability to change, and with the sensitivity of helping others.

2.5 In both male and female, the desire to be treated as bona fide adults, rather than as glorified high school students, is reflected in the eleven items of indecision. For example, the opinions of others, including parents, the process of goal-setting, and the right to protest remain matters of doubt. Here, again, because these items are not in the relevant category, there are clues for understanding independence of thought and action desired by young adults. Yet, in this quest for independence, there is the grave, profound consideration of whether one's actions are "inner" directed or "other" directed; or whether there is the juxtaposition of relevancy as personal-academic versus relevancy as social - utile!

That academic relevancy remains a problem involving the affirmation or denial of values, ideas, habits or traits, as expressed in the items of the inventory originated by students. For example, the student may project himself into various crises situations - either local or world-wide - with an honesty of commitment and a dedication of purpose. In effect, his ultimate concern involves his own private conscience versus a rather nebulous public conscience. Viewed another way, the gulf that may exist between the latter types of consciences is similar to the gap that exists between the morals and the mores of contemporary America. Indeed, the student, via a maze of conflicting views offered by the mass media, becomes confused and disoriented, rather than (so it is alleged) apathetic!

4. That within the reference field of self-concept and motivation, where these global variables involve a time-person-space continuum, it is crucial to provide and interpret a content analysis of the four categories of questions originated by students.

4.1 For those questions relating to and termed as self-adequacy (i.e., see items 1, 5, 9, 13, 17, 21, 25, 29, 33, and 37); the dominant theme expresses a deep inner concern about the past, present, and future in terms

of those experiences involving success or failure. The student who would rank himself low in this category is, in effect, caught in a "self-fulfilling prophecy" syndrome of inadequacy. [1] In contrast, the student who ranks himself high in this area is the self-actualizing type of person. One would expect these questions to be highly relevant to individuals who have traditionally placed a high value on education as an institution, and who have considerable pride in their performance within it.

The questions also seem to imply that there is a certain amount of self-respect and satisfaction connected with financial independence.

Every student, at one time or another, needs a certain amount of encouragement. In a very real way, the marking system affords a method of encouragement, because good grades are a hallmark of academic survival! Hence, getting an A ~~on a difficult test~~ without really trying would certainly supply this encouragement and make the student realize that he can, indeed, achieve. However, getting an A on a difficult test may also provide encouragement, but these kinds of encouragement should be viewed according to the students's background. Unquestionably, the striving for high grades may be a worthy goal but it is not the only goal of academic pursuit.

Most important, however, is the fact that nine out of the aforesaid ten items were rated within the range of relevance! Moreover, within the four subsets (see "Group Data Statistics"), the factor of self-adequacy has some of the highest mean stanine scores among the nineteen

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1 For a complete listing of stanine values for these four categories among the various institutions of higher learning, See Table 24, entitled "Group Data Statistics." In passing, it should also be noted that among the 29 relevant items, the four factors were ranked as follows: 1) Self-Adequacy = 90% of relevant items, 2) Goal Needs = 80%, 3) Personal Investment = 70%, and 4) Role Expectations = 50%.

institutions sampled during the replicated model.

4.2 For those questions relating to and termed as role expectations (i.e., see items 2, 6, 10, 14, 18, 22, 26, 30, 34, and 38); inherent in many of these items is the idea that students are not certain of what they expect of themselves, or what they expect others to expect of them.

The subject measuring highly relevant on these items would be one who is concerned with what is expected of him by others around him. Hence, it would probably be less important to him to demonstrate leadership in new areas, and it would be more important for him to perform in a manner acceptable by his peers or acceptable to those who influence him. On the average, his choice of a "life style" would probably be a non-rebellious "don't-rock-the-boat" type of attitude. Concurrent with this point of view, students are also expressing the opinion that they want to make their own decisions, and to live with them - regardless of the consequences! The pressure to conform is enormous: students must feel (or are made to feel) somewhat guilty if they act contrary to the wishes of parents, professors, or other influential people in their lives. For many students, it must be immensely difficult to reject other people's feelings and demands without a great deal of worry and anxiety.

Fifty percent of these items were rated with mean stanine values greater than 6.00. In fact, item 10, which deals with one's "occupation" being "rewarding and worthwhile," has the greatest relevancy of all items. (This latter item could also be fit into the "Goal Needs" category because it is goal directed and because it is fulfillment-extrinsic in nature. In passing, it should be noted that other items are also characterized by this "overlap" into other areas just as appropriate).

4.3 For those questions (previously known as Failure Avoidance) relating to and termed as Personal Investment (i.e., see items 3, 7, 11, 15, 19, 23, 27, 31, and 35); one observes the variations on a theme that everyone cannot succeed in every endeavor, and, yet, students desire the opportunity to display or prove their abilities. Indeed, the door to the future opens or closes on the hinges of success or failure. The investment, both in time and money, is substanial! Tragically, for many, the serious mistakes made in college are irretrievable. For many students, the subject matter offered in ce rtain courses is of little or no consequence to their future. Therefore, if asked, they will reply that "It doesn't really matter" whether they take the course. Furthermore, if they are required to take the course for a given major or program, a grade is practically their only concern. Obviously, too much emphasis is placed on passing and failing rather than on acquiring understandings, awarenesses, knowledge, and skills necessary for their chosen profession. More than at any other time in his life, the college student must see the relationship between what he is asked to do (as measured by academic success or failure) and by his own personal investment (as measured by time, money, and his own views of academic relevancy).

Significantly, seventy percent of these items exceed 6.00 in the range of relevancy. These ten questions give forth laments which seem to say, "Give me a chance!" or "Help me see myself!" or "Help me realize my abilities," but most important - "Please reassure me!"

4.4 For those questions relating to and termed as Goal Needs (i.e., see items 4, 8, 12, 16, 20, 24, 28, 32, 36 and 40); the dominant leitmotiv for these items appears to be that, as the student gains in his ability to cope with increased responsibility (i.e., ability to change, tasks, competition, etc.), the more <u>realistic</u> are his goals. It is well known that the phenomena of cycles of activity, of drives, and of emotion belong within the framework of acquired and organized motives. It is also known that the

student, in setting his goals, has certain needs which must be met. In the ordinary ways of living, these needs can best be satisfied in different ways for different people. Thus, some people need to help their fellow men, some need to receive recognition, some need a continuous challenge, others need monetary rewards; but everyone needs to be accepted! Here, one is reminded of the schema or the four wishes of W. I. Thomas: 1) the desire for new experiences; 2) the desire for security; 3) the desire for (intimate) response; and 4) the desire for recognition.

Yet, in terms of goals in relation to training and retraining, one senses (at least from the questions posed) the importance of time or the factor of latency. In this respect, as it was noted earlier in the analysis of student's characteristics, one of the most crucial factors concerns that of age. The immediate-intrinsic goals lead the student to postpone the advantages of bona fide adulthood in favor of fulfillment - extrinsic goals; or the advantages of a college education in terms of high social status, and, the student hopes, a good income. Herein is the dilemma for most students: on the one hand, in order to continue in school, the student is dependent upon his parents for financial support, with all that this implies as to emotional dependence. Conversely, if he attempts to earn his own way, he is faced with the horrendous demands of a heavy scholastic program and holding a job. The student who can cope with these latter challenges deserve the highest praise and admiration. Yet, there are those who cannot make it and fall by the wayside, because of their unrealistic goals, or because of the intense pressures inherent in the academic world. Assuredly, there are many students for whom the college experience is quite meaningless or "not relevant." Indeed, their primary goals or purposes in seeking higher education may be in grave doubt, but a further examination of this issue is beyond the scope of this study.

Finally, the attainment of goals has become associated with the idea of immediacy, because that which is relevant is, ipso facto, also immediately useful or utilitarian. Consider, for example, the great distaste (or pure distrust) that many students currently have for theory. One reasons that the "doing" in the here and now is far more relevant than the skill and great patience inherent in disciplined inquiry. Unfortunately, students perceive (all too often correctly) a false dichotomy thrust between theory and practice. Hence it is easy to see why, in a moment, they would sacrifice theory on the altar of immediacy! (Compare, for example, one most recent finding of the Carnegie Commission on Higher Education: "Ninety-one percent of the students believe undergraduate education could be improved if course work were more relevant to contemporary life and problems." From the Educational Researcher, A.E.R.A., Vol. XXII, April, 1971, p. 5.).

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Some possibilities and considerations based on this study of academic relevancy, are presented in the next section.

H. Summary: Some Implications for Change

If anything, this in-depth probe of academic relevancy should help to give substance to the many creative and innovative programs either suggested or in progress at many institutions of higher learning. Assuredly, it is not for lack of leadership, of plans, or of programs that have hampered the colleges or universities in their quest for high quality education. Rather, it is simply a matter of inadequate funds. Indeed, with the grave financial crisis facing higher education, and with the tremendous upheaval caused by changes in the political, social, and economic scenes, it is amazing that innovations and daring, new curricular and organizational designs have developed at all!

Yet, despite the latter realizations, there is a growing awareness that the student's encounters with higher education involve more than a rigid program, fixed in time and space, in a repository of knowledge.

First, as this study suggests, the experience of higher education must be continuous, dynamic, and active, rather than sporadic, static, and passive. Within this context, academic relevancy involves a meaningful experience where the student can, in many problem-solving situations, see the clear relationship of what he is asked to do in light of his own goals. Crucial to this process of goal attainment will be the student's own share in planning, decision-making, and

self-evaluation.

Second, if higher education is to transcend the "repository of knowledge" idea and if it is to move into the marketplace of immediate, first-hand experiences, then the student should be offered a variety of alternatives. This much wider spectrum of choices demands flexibility of time, flexibility of scheduling, flexibility in the use of space (i.e., beyond the geographical limits of a given campus), and flexibility in the use of personnel. Programs geared to these kinds of flexible arrangements will help to provide solid links of understanding; such programs will provide outlets of mutual concerns; and, finally, this emphasis on flexibility will allow for the freedom and benefits inherent in the process of trial and error and of adjusting to changing conditions. However, if this kind of flexibility is to be realized, then many time-honored perceptions regarding the quantitative aspects of the "Carnegie unit" of work must be altered. In effect, one is saying, "Let's educate for the process of change in a rapidly changing world where it is becoming increasingly difficult to <u>predict</u> the needs of the marketplace!"[4]

Third, the stark realities of an <u>existential</u> crisis - evident in the polarization of various groups and the very environment itself - calls for a new emphasis or <u>point of entry</u> regarding cognition in relation to man's ability to

cope with these crises. Rather than "knowledge for the sake of knowledge", special attention and focus must be given to what is now popularly known as the "affective domain." This stress on the emotional tone of the student's behavior may be the most difficult task of all because of its affinity to values and the process of valuing. Nevertheless, new points of entry must be developed if these crises are to be resolved.

Fourth, especially in the case of the male, higher education <u>in a formal program</u> should be delayed in favor of informal, <u>direct</u> experiences. The junior college movement comes admirably close to the realization of this latter ideal. A "terminal" program of short duration has definite merit - especially in terms of the sacrifice if he is not successful - the student makes in time and money. Consequently, other institutions of higher learning should give serious thought to programs (leading to degrees) <u>less</u> in duration than the common four year program, but <u>greater in scope</u> than the junior college. On the other hand, certain programs, in light of new knowledge, should be expanded both in time and place - because of the great preparation needed for competency in the field. The world of work offers tremendous possibilities for <u>differentiation</u> in programs for students with unique capacities, interests, and motivations. In turn, such differentiation involves a considerable number of additional personnel in the critical

area of counseling and guidance. For example, in view of the present over-supply of teachers, the talents of these professionals, with some modifications in training, could be re-directed to other fields of endeavor. Hopefully, in the final decades of this century, higher education can direct its energies to a very old dream: the education of a whole person, the <u>generalist</u> who will be skillful in adjusting to a number of different roles in a society of ever-shifting demands. Hopefully, and to paraphrase the words of A. Whitney Griswold, in his particular opinion, the primary purpose of a liberal education is the "releasing of humanistic impulses."

In conclusion, the phenomenon of academic relevancy, as treated in this study, involves a framework of values intimately associated with success and failure. The student who adheres to the norms for a successful experience in higher education is rewarded in like measure for his efforts. This particular framework, in no way whatsoever, excludes <u>other</u> frameworks of relevancy. However, the further one departs from the accepted norm for "relevant" experiences, the greater the price (all the way to complete alienation) he must pay.

Those students who cherish the values of the "counter-culture" or the "anti-culture" may or may not embrace this framework of academic relevancy. Indeed, they could re-

place any given set of items with a set of their own, claiming that any other representative experience is not a good measure of their experiences.

Nevertheless, this writer believes that academic relevancy involves the very difficult process of maturing, and that higher education, in a most critical time in history, has done yeoman's service in enhancing this intriguing concept.